30/2-32E05 1 of 2

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No.
Water Right Permit No. 016846

(1) OWNER: Name NIERMEYER, BRUCE Address 305 S. STATE COLLEGE ANAHEIM, CA 92806-

(2) LOCATION OF WELL: County ISLAND - SW 1/4 NW 1/4 Sec 31 T 30 N., R 2 WM
(2a) STREET ADDRESS OF WELL (or nearest address) SMUGGLER COVE RD.

(3) PROPOSED USE: DOMESTIC

(4) TYPE OF WORK: Owner's Number of well (If more than one) 00562
NEW WELL Method: ROTARY

(5) DIMENSIONS: Diameter of well 6 inches
Drilled 492 ft. Depth of completed well 492 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 * Dia. from +3 ft. to 478.5 ft.
WELDED * Dia. from ft. to ft.
* Dia. from ft. to ft.

Perforations: NO
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: YES
Manufacturer's Name JOHNSON
Type STAINLESS STEEL Model No.
Diam. 4 slot size 8 from 481 ft. to 485 ft.
Diam. 4 slot size 10 from 485 ft. to 489 ft.

Gravel packed: NO Size of gravel
Gravel placed from ft. to ft.

Surface seal: YES To what depth? 18 ft.
Material used in seal PUDDELING CLAY
Did any strata contain unusable water? NO
Type of water? Depth of strata ft.
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ... ft.
Static level 291 ft. below top of well Date 07/13/88
Artesian Pressure lbs. per square inch Date / /
Artesian water controlled by

(9) WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? NO If yes, by whom?
Yield: gal./min with ft. drawdown after hrs.

Recovery data

Time	Water Level	Time	Water Level	Time	Water Level

Date of test / /
Bailer test 7 gal/min. 25.5 ft. drawdown after 2 hrs.
Air test 12 gal/min. w/ stem set at 480 ft. for 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? NO

(10) WELL LOG

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.

MATERIAL	FROM	TO
TOPSOIL	0	2
BROWN SAND & GRAVEL & CLAY	2	28
BROWN SAND	28	40
GRAY CLAY	40	51
GRAY SILT SAND WOOD	51	56
& - SEEPAGE	51	56
GRAY CLAY	56	89
GRAY CLAY & GRAVEL	89	115
BROWN SAND GRAVEL & CLAY	115	125
SANDY BROWN CLAY & LITTLE GRAVEL	125	133
BROWN MED. SAND & CLAY	133	14[illegible]
BROWN GRAVEL & CLAY	[illegible]	[illegible]
BROWN GRAVEL SAND & CLAY	155	[illegible]
BROWN & GRAY CLAY	[illegible]	[illegible]
GRAY CLAY	[illegible]	[illegible]
GRAY CLAY & WOOD	195	[illegible]
LAYERED GRAY CLAY	[illegible]	[illegible]
GRAY CLAY & SILT	[illegible]	[illegible]
GRAY CLAY & WOOD	[illegible]	[illegible]
SANDY GRAY CLAY WOOD	[illegible]	[illegible]
& SCATRD. GRAV.	[illegible]	[illegible]
GRAY CLAY	[illegible]	[illegible]
GRAY CLAY & - SEEPAGE	[illegible]	[illegible]
GRAY CLAY & SILT - SEEPAGE	[illegible]	[illegible]
GRAY CLAY	[illegible]	[illegible]
GRAY CLAY & LITTLE GRAVEL	[illegible]	[illegible]
SANDY GRAY CLAY & GRAVEL	[illegible]	[illegible]
SANDY GRAY CLAY & LITTLE GRAVEL	[illegible]	[illegible]
SANDY GRAY CLAY & GRAVEL	464	475
HARD LAYERED SANDY	475	
GRAY CLAY GRAVEL & WATER	475	

Work started 07/08/88 Completed 07/13/88

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME HAYES WELL DRILLING/PUMPS
(Person, firm, or corporation) (Type or print)

ADDRESS 556 ERSHIG RD.

[SIGNED] _____ License No. 762

Contractor's Registration No. HAYESWD 1870 W Date 07/14/88

OVER - SEE REVERSE SIDE

RECEIVED
JUL 18 1988
ISLAND COUNTY
HEALTH DEPARTMENT

Well No 30/2-32E05
14 July 88
See Attached Sheet

EXAMPLE OF INCORRECT WELL LOG
Lack of Accurate Information to Determine Status of Saltwater Intrusion

This well log of Bruce Niermeyer's well is important because of the apparent error of the actual location and depth. It illustrates the need for field checking of all well reports by competent hydrogeologists.

Location of the well shown on the Well Report is in error by one mile. The description of the location as stated is:

T30N., R2_, SW 1/4 of the NW 1/4, Sec. 31,

which places it one mile off-shore in Puget Sound northbound shipping lane. Note the incomplete Range figure and the incorrect Section Number.

Actual location of the well is:

'T30N., R2E - SW 1/4 of the NW 1/4, Sec. 32.

Physically it is 1200-feet inland from saltwater and 200-feet west of Smuggler's Cove Road.

The well number should be 30/2-32E05. JCC 275+093

These two errors in this legal document can result in tax assesment errors, water right disputes, as well as compounded errors throughout the State's computer records. They also place the well driller's license in jeopardy.

Casing elevation is not shown, but a topographical map shows ground elevation to be 280 to 300 feet. The casing elevation, because of it's importance, should be established by differential leveling.

The log is also unsigned.

A minimum of two chemical analyses should be made for:

1. Sodium and chloride to detect saltwater intrusion.
2. A test for arsenic should be done to detect arsenic poisoning.

/s/HARRY E. WILBERT, Prof. Engr. #2341

Submitted this 22 day of September 1988.

Harry E. Wilbert

HARRY E. WILBERT, P.E. #2341
WILBEE REASEARCH

HEW/mmw

Casing elevation 280 by Alt. 22 June 1989
Static water level -11.0 13 July 1988